



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple, Suite 1210

Michael O. Leavitt
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October 29, 1996

Greg Hawkins, Manager
Brush Wellman, Inc.
P.O. Box 815
Delta, Utah 84624

Re: Reclamation Release Based on Site Inspection of September 12, 1996, and Past Variances,
Brush Wellman, Topaz Mine, M/023/003, Juab County, Utah

Dear Mr. Hawkins:

Thank you for providing my staff with the opportunity to inspect your site on September 12, 1996. The following areas were inspected and the following determinations were made regarding reclamation release.

<u>Site</u>	<u>Job</u>	<u>Determination</u>
Sigma Emma	rip and seed roadway	Released
Section 16 #1	rip and seed dump	Released with a condition*
Roadside #1 & #2	rip and seed	Released

**The condition is that alternative reclamation methods/techniques will be tried in this area to try and enhance overall vegetative success. These methods and their success will be documented by the operator in the Annual Report and will be limited to this area.*

The tuff and rhyolite covered dumps totaling 432.6 acres, as referenced in the attached memo (given to the Division during the site inspection) and shown on drawing D:\Acad\reclaim\DOGM96-1, were given a variance from the 70 percent revegetation standard in previous Division correspondence. For future reference, we request that you use the disturbed area map contained in your approved permit to show variances and released areas, instead of Drawing D:\Acad\reclaim\DOGM96-1. The latest autocad drawing is confusing and difficult to interpret. This letter recognizes and confirms the previous variance as referenced in past correspondence. The Division hereby releases the 432.6 acres from future reclamation requirements by the operator. As we look forward to the eventual reclamation of the remaining mine site disturbances, it is crucial that the Division, the operator, and the BLM continue to work together in developing site specific reclamation practices which will help insure that the 70% revegetation performance standards are achieved.

We have prepared the following table summarizing disturbed acreage that will ultimately need to be reclaimed. Some of the acreage is existing and some is yet to be mined. This summary is the



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same as the BLM's list which was contained in their October 22, 1996 letter to you. The only modification to this list is the addition of State Lands. The acreages are to be used only as a guide since they are acreage interpretations from various mapping sources. These acreages would have to be verified on the ground to be considered accurate. The bond associated with the outstanding unreclaimed areas has not changed from the original sum of \$311,300 dollars. This amount which was based on 1189 acres of projected life of mine disturbance. The mine will remain bonded for the maximum projected disturbance and the accounting of disturbed acreage is an exercise to keep track of the exact disturbance at any point in time.

<u>Disturbance</u>	<u>Acreage (acres)</u>
Section 16 #1 Dump	20.00
Roadside/Fluro # 3 Pit	20.13
" " " Dump	12.19
Section 16 Pit	13.00 * Federal lands & 26.4 State lands
Blue Chalk North #2 Pit	13.00 ♦
Blue Chalk North #1 Pit	20.64 ♦
Monitor #3 Pit	23.00 ♦
Monitor #3 Dump	29.00 ♦
Blue Chalk South Pit	21.74
Roads	<u>30.00</u> *

Total Acreage disturbed or to be disturbed **229.10** acres

* "acreage estimated by the BLM"

♦ "to be disturbed in future mining addressed in 1996 amendment"

Thank you for your attention to the accurate accounting of your mining disturbances and reclamation. We appreciate your continued cooperation and look forward to working with you in finding solutions to the oftentimes difficult reclamation challenges we are faced with in these harsh mining environments. Should you have any questions concerning this letter please contact me or Tom Munson of my staff.

Sincerely,



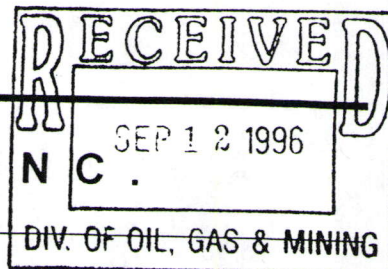
D. Wayne Hedberg
Permit Supervisor
Minerals Reclamation Program

jb

Attachments: Brush's 9/12/96 memo and DOGM's 10/14/96 memo

cc: Ron Teseneer, BLM-Warm Springs RA
M023003.let

BRUSH WELLMAN, INC.



During inspection

DATE: September 12, 1996
TO: Reclamation '96 File
FROM: Clyde Yates
RE: Varied Dump Acreage as of 1988 Revision
CC: Greg Hawkins, BLM Fillmore Office, UDOGM

*DIFFERENCE BETWEEN
PLAN AND SURVEY
MAP*

*PLATE 2.0-1 OUT OF
VOL 4*

A letter dated September 28, 1988 to Ken Poulson (retired Vice President of Mining and Exploration, BWI) from Lowell Braxton (Administrator, UDOGM) granted several variances and stipulations as requested in the MRP as submitted on June 10, 1988. Page 2, paragraph 3. of the letter discusses variance from revegetation of 255 acres of tuff covered dumps and 177 acres of rhyolite covered dumps. Tabulated below are the details of this acreage. Please note that the MRP is ~~rather enigmatic~~ and that acreage divisions are difficult to decipher in some instances..

*ACREAGES
JIVE W
VARIANCES*

Tuff Covered Dump	Acreage	MRP Pg #	Comments
Roadside 1 & 2	113.6	9	Assumed to be all tuff
Blue Chalk North and South	20.6	9	Remainder of total less tuff
Fluro	64.9	9	Assumed to be all tuff
Sigma Emma	56.1	9	Remainder of total less tuff
Total Acreage	255.2		
Rhyolite Covered Dumps			Data below REVISED 11/14/88
Blue Chalk North and South	72.8	46	Ripped & seeded in 1988
Sigma Emma	13.3	46	Ripped & seeded in 1987
Taurus	33.3	46	Ripped & seeded in 1987
Rainbow	58.0	46	Ripped & seeded in 1989
Total Acreage	177.4		

The sum of tuff and rhyolite covered dumps is **432.6 Total Acres**. This data has been illustrated on the drawing (d:\acad\reclaim\DOGM96-1) which was provided to the BLM and UDOGM representatives on their site visits of 9/10/96 and 9/12/96, respectively. The documentation which was provided during the same visits is consistent with this data and the drawing.

/jw



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October 14, 1996

TO: Minerals File

FROM: Tom Munson, Reclamation Hydrologist 

RE: Site Inspection, Topaz Mine, Brush Wellman Mine, M/023/003, Juab County, Utah

Date of Inspection: September 12, 1996
Time of Inspection: 10:00 a.m. - 3:00 p.m.
Conditions: Sunny
Participants: Greg Hawkins and Clyde Yates, Brush Wellman; Tom Munson, DOGM

Purpose of Inspection: To inspect reclamation of mine site

On September 12, 1996, an inspection of the Brush Wellman mine occurred between Division inspector, Tom Munson and Brush Wellman representatives, Greg Hawkins and Clyde Yates. Areas of the Sigma Emma dump, the Section 16 #1, and a section of Roadside #1 and #2 were inspected for release. The Roadside #1 and #2 looked excellent, the Sigma Emma roadway looked good, and Section 16 #1 was considered marginal and released with conditions. Mr. Yates should be complemented for his work on the East Sigma Emma roadway. The erosion control measures incorporated by Mr. Yates were not only appropriate, but well thought out and implemented.

The reason for releasing and conditioning Section #16 was that this area would be considered a test area for use of alternative methods to incorporate organic matter into the soil. One method currently being tried is the use of sheep feeding and grazing in concentrated areas. This will be evaluated and any data collected, regarding the outcome of this test, will be included in the Annual Report. Future testing of the topsoils and subsoils must key into the necessary organic and saline soil requirements trying to replicate other successes. It may be prudent to set up a test area to try various soil amendments (i.e. gypsum, cow manure, etc.). According to Mr. Hawkins, all this will be well documented and coordinated with soil scientists.

The location of the future monitor pits were looked at and recent soil test pits examined. It was stressed by Mr. Hawkins that a definite soil horizon change occurred at about 6-8 inches where a saline layer was visually observed. In future stripping of soils for the monitor pits it will be necessary that the stripping differentiates this layer from the soils below. Recent phone conversations with Mr. Hawkins verified that stripping of the monitor pit topsoils, per the six inch criteria, had occurred. Approximately 60,000-70,000 cubic yards of prime topsoil has been saved



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from the monitor pit area using the 6-8 inch criteria for stripping. A separate subsoil pile was also created with the material below 6 inches and will be tested before its future use for suitability. Mr. Hawkins hopes that this will benefit future reclamation.

The map showing past variances, reclaimed areas, and future mining areas was given to me during the inspection, along with some correspondence referencing past variances given by the Division. The map was somewhat confusing because of the different data sources from which it was drawn. Therefore it was suggested to simplify the map by including the information on the plate found in the mine plan, so that confusion over which areas are released is minimized.

jb
cc: Greg Hawkins, Brush Wellman
Will Stokes, SITLA
Ron Teseneer, BLM, House Range RA
M023003.mem